

Subject: Mathematics

Grade: Fourth

Standard: #7 Measurement and Estimation

Key Concept: Students develop an understanding of units of time.

Generalization: Students work with units of time and learn to add time intervals.

Background:

Students should be familiar with the concept of time. They should be able to recognize the difference between yesterday, today, and tomorrow; day, week, and month; hours, minutes, and seconds. In addition, students should recognize the seasons of the year.

This lesson is based on the The Official m & m's<sub>BRAND</sub> Book of the Millennium, ISBN#0-88106-072-0. The teacher uses the book as a means of providing background about time in general and more specifically, about the formation of the calendar.

This lesson is tiered in *content* according to *readiness*.

Tier I: ***Basic Learners***

After the teacher reads the first three pages of the book and illustrates the addition of various time units including Roman numerals, the students work in pairs to complete a worksheet which contains some simple problems involving the addition of time units including some which are written in Roman numerals.

Next the teacher reads with the students the remainder of the book which is all about calendars. Students work in pairs to complete a worksheet which has questions pertaining to the present day Gregorian calendar.

Tier II: ***Grade Level Learners***

After the students read the first three pages of the book and the teacher illustrates the addition of various time units, the students work in pairs to complete a worksheet which contains more difficult problems involving the

addition of time units most of which are written in Roman numerals.

Next the students read the remainder of the book which is all about calendars. Students work in pairs to complete a worksheet which compares the early Roman calendars with the present day Gregorian calendar.

### Tier III: *Advanced Learners*

After the students read the first three pages of the book, the students work in pairs to complete a worksheet of problems of various difficulty levels which involve the addition of time units all expressed Roman numerals.

Next the students read the remainder of the book which is all about calendars. Students work in a group to orally compare the various calendars (Chinese, Aztec, & Roman) which are presented in the book. Then the students create a worksheet which asks questions about the three calendars.

All tiers complete this final activity:

Students in each tier brainstorm a list of ways the world changed from the year 1000 to the year 2000 and to project the changes which will occur from the year 2000 to the year 3000.

Each tier shares their ideas with the rest of the class. Have each tier prepare a complete list of all the ideas.

Assessment:

Grade the worksheets for correctness. Use a summative approach to evaluate the class discussion about the changes in the world.